

EXHIBIT 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WESTERN DIGITAL TECHNOLOGIES, INC.,
Petitioner

v.

OCEAN SEMICONDUCTOR LLC,
Patent Owner

IPR2021-00929
Patent No. 7,080,330

PATENT OWNER'S RELIMINARY RESPONSE

Under 35 U.S.C. § 42.107

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LIST OF EXHIBITS RELIED ON

Exhibit	Description
2001	Docket No. 34 Scheduling Order entered in <i>Ocean Semiconductor LLC v. Western Digital Technologies, Inc.</i> No. 6:20-cv-1216-ADA (W.D. Tex)
2002	Docket No. 1 Complaint filed in <i>Ocean Semiconductor LLC v. STMicroelectronics, Inc.</i> , No. 6:20-cv-1215-ADA (W.D. Tex)
2003	Docket No. 1 Complaint filed in <i>Ocean Semiconductor LLC v. Silicon Labs, Inc.</i> , No. 6:20-cv-01214 (W.D. Tex.)
2004	Docket No. 1 Complaint filed in <i>Ocean Semiconductor LLC v. Renesas Elecs. Corp., et al.</i> , No. 6:20-cv-01213 (W.D. Tex.)
2005	Docket No. 1 Complaint filed in <i>Ocean Semiconductor LLC v. NXP Semiconductors NV, et al.</i> , No. 6:20-cv-01212 (W.D. Tex.)
2006	Docket No. 1 Complaint filed in <i>Ocean Semiconductor LLC v. NVIDIA Corp.</i> , No. 6:20-cv-01211 (W.D. Tex.)
2007	Docket No. 1 Complaint filed in <i>Ocean Semiconductor LLC v. MediaTek Inc., et al.</i> , No. 6:20-cv-01210 (W.D. Tex.)
2008	Docket No. 32 Scheduling Order entered in <i>Ocean Semiconductor LLC v. MediaTek Inc., et al.</i> , No. 6:20-cv-01210 (W.D. Tex.)
2009	Docket No. 32 Scheduling Order entered in <i>Ocean Semiconductor LLC v. NVIDIA Corp.</i> , No. 6:20-cv-01211 (W.D. Tex.)
2010	Docket No. 34 Scheduling Order entered in <i>Ocean Semiconductor LLC v. NXP Semiconductors NV, et al.</i> , No. 6:20-cv-01212 (W.D. Tex.)
2011	Docket No. 43 Scheduling Order entered in <i>Ocean Semiconductor LLC v. Renesas Elecs. Corp., et al.</i> , No. 6:20-cv-01213 (W.D. Tex.)
2012	Docket No. 31 Scheduling Order entered in <i>Ocean Semiconductor LLC v. Silicon Labs, Inc.</i> , No. 6:20-cv-01214 (W.D. Tex.)
2013	Docket No. 34 Scheduling Order entered in <i>Ocean Semiconductor LLC v. STMicroelectronics, Inc.</i> , No. 6:20-cv-1215-ADA (W.D. Tex)
2014	Docket No. 1 Complaint filed in <i>Ocean Semiconductor LLC v. Huawei Device USA Inc., et al.</i> , No. 4:20-cv-00991 (E.D. Tex.)
2015	Docket No. 22 Scheduling Order entered in <i>Ocean Semiconductor LLC v. Huawei Device USA Inc., et al.</i> , No. 4:20-cv-00991 (E.D. Tex.)

2016	Docket No. 1 Complaint filed in <i>Ocean Semiconductor LLC v. Infineon Techs. AG, et al.</i> , No. 1:20-cv-12311 (D. Mass.)
2017	Docket No. 1 Complaint filed in <i>Ocean Semiconductor LLC v. Analog Devices, Inc., et al.</i> , No. 1:20-cv-12310 (D. Mass.)
2018	Ryan Davis, How Texas Judges Have Kept IP Trials Moving During COVID, LAW360, Apr. 6, 2021, https://www.law360.com/articles/1372773/how-texas-judges-have-kept-ip-trials-movingduring-covid
2019	Judge Alan D Albright's ORDER GOVERNING PROCEEDINGS – PATENT CASE, June 24, 2021
2020	ECFs reflecting completion of briefing for Motions to Dismiss
2021	ECF reflecting July 15, 2021, decision by Judge Albright on Motions to Consolidate
2022	ECF reflecting completion of briefing for Motion to Transfer Venue filed by Renesas Electronics Corp. and Renesas Electronics America
2023	Ocean Semiconductor LLC's Notice Letter to Western Digital Corporation dated November 24, 2020
2024	Preliminary Infringement Contentions cover pleading in <i>Ocean Semiconductor LLC v. Western Digital Technologies, Inc.</i> No. 6:20-cv-1216-ADA (W.D. Tex)
2025	Docket No. 29 Renesas's Response to Ocean Semiconductor's Motion for Pre-trial Consolidation of Co-pending Related Cases in <i>Ocean Semiconductor LLC v. Renesas Elecs. Corp., et al.</i> , No. 6:20-cv-01213 (W.D. Tex.)
2026	Docket No. 28 STMicroelectronics, Inc.'s Opposition to Ocean Semiconductor's Motion for Pre-trial Consolidation in <i>Ocean Semiconductor LLC v. STMicroelectronics, Inc.</i> , No. 6:20-cv-1215-ADA (W.D. Tex)
2027	Docket No. 25 Silicon Laboratories Inc.'s Opposition to Plaintiff's Motion for Pre-trial Consolidation in <i>Ocean Semiconductor LLC v. Silicon Labs. Inc.</i> , No. 6:20-cv-01214 (W.D. Tex.)
2028	Docket No. 25 MediaTek Inc.'s and MediaTek USA Inc.'s Opposition to Motion for Consolidation of Co-pending Related Cases in <i>Ocean Semiconductor LLC v. MediaTek Inc., et al.</i> , No. 6:20-cv-01210 (W.D. Tex.)

2029	Docket No. 28 NXP Semiconductors NV's Opposition to Motion for Consolidation of Co-pending Related Cases in <i>Ocean Semiconductor LLC v. NXP Semiconductors NV, et al.</i> , No. 6:20-cv-01212 (W.D. Tex.)
2030	J. A. Dagata <i>et al.</i> , <i>Metrology Development for the Nanoelectronics Industry at the National Institute for Standards and Technology</i> , 3 NSTI-Nanotech 354 (2004)

Through the undersigned Counsel, Patent Owner Ocean Semiconductor LLC (“Ocean” or “Patent Owner”) submits the following Patent Owner Preliminary Response pursuant to 37 C.F.R. § 42.107 (a). *See also* 37 C.F.R. § 42.107 (b).

I. INTRODUCTION

Petitioner Western Digital Technologies, Inc. (“WDT” or “Petitioner”) filed a Petition for *Inter Partes* Review of U.S. Patent No. 7,080,330 (“the ’330 Patent”) on May 18, 2021. (IPR2021-00929, Paper No. 1 (“Petition”).) The Petition should be denied for several reasons.

The Board should exercise its discretion under 35 U.S.C. § 314(a) to deny the Petition for multiple reasons. First, because—no matter how the challenged claims are ultimately decided in this forum (i.e., whether or not trial is instituted and whether or not any challenged claims are found to be invalid)—there are **three** district courts—in the Eastern District of Texas (“EDTX”), the Western District of Texas (“WDTX”), and the District of Massachusetts (“DMASS”)—overseeing **a total of ten district court actions** that will have addressed, or will be in the midst of addressing, the validity of each of the challenged claims of the ’330 Patent by the projected November 26, 2022, deadline for a Final Written Decision (“FWD”).

Second, most of the defendants in six other parallel district court actions pending in the WDTX where the ’330 Patent is also asserted have **explicitly** represented to the court that they are not bound by Petitioner’s stipulation to not

pursue the same prior art references and grounds in the district court litigations. The defendants in the three additional actions in the EDTX and DMASS have never agreed to be bound. Thus, those prior art references will surely be re-litigated by one or more of those defendants in the co-pending actions.

Third, the EDTX proceeding (pending before Judge Mazzant, III) where the '330 Patent is being asserted against an additional third-party defendant has its Final Pretrial Conference scheduled for August 15, 2022—more than three months before the Board's statutory FWD deadline of November 20, 2022, and typically starts trial three weeks later—still more than two and a half months before the FWD deadline. In the similar vein, the seven related WDTX proceedings (all pending before Judge Albright), which include the one in which the Petitioner is a named defendant, have trial scheduled to take place at around the same time as the deadline for the FWD, with the Final Pretrial Conference to take place on November 16, 2022—ten days before the FWD deadline—and trial on December 7, 2022—just eleven days after the FWD deadline.

Thus, the possibility of duplication of efforts here is very high, as is the potential for inconsistent results, should the Board decide to become the *fourth* tribunal across *eleven* different proceedings considering the overlapping issues.

Fourth, beyond the many reasons supporting discretionary denial, Petitioner failed to show that there is a reasonable likelihood that it would prevail with respect to at least one of the claims challenged in the Petition.

Specifically, Petitioner’s Ground 1—alleged anticipation by the Levy reference—fails *inter alia* because it improperly relies on teachings from multiple distinct embodiments to cobble together the various elements of the challenged claims. The rest of Petitioner’s grounds (Grounds 2-4) all allege obviousness over various combinations of alleged art, but Petitioner fails to present the needed evidence of a motivation or teaching that would have led a person of ordinary skill in the art (“POSITA”) in 2003 to combine the prior art in the manner Petitioner presents. Thus, these grounds fail as well.

For each of these reasons, and as further discussed below, the Petition should be denied.

II. APPLICABLE LEGAL PRINCIPLES

A. Discretionary Denial Under 35 U.S.C. § 314(a)

The AIA’s 35 U.S.C. §314(a) “invests the Director with discretion on the question [of] *whether* to institute review.” *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (emphasis in original). The Board is “permitted, but never compelled, to institute an IPR proceeding.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016); *see also Cuozzo Speed Techs., LLC v. Lee*, 136

S. Ct. 2131 (2016). In exercising its discretion, the Board considers the merits of a petition, not in isolation, but in view of surrounding circumstances relevant to the “potential impacts on both the efficiency of the *inter partes* review process and the fundamental fairness of the process for all parties.” *General Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 18 (P.T.A.B. Sept. 6, 2017) (Precedential).

Denial may be warranted in view of “events in other proceedings related to the same patent, either at the Office, in *district courts*, or the ITC,” regardless of whether the minimum standards for institution are met. Consolidated Trial Practice Guide (“TPG”), at 58 (citing *NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, IPR2018- 00752, Paper 8 at 11–21 (P.T.A.B. Sept. 12, 2018)) (Precedential).¹

In balancing whether to exercise its § 314(a) discretion to deny institution, the Board considers six factors articulated in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 6 (P.T.A.B. Mar. 20, 2020) (Precedential) (“*Fintiv I*”):

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;

¹ All emphasis in this Preliminary Response is added unless noted otherwise.

5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board’s exercise of discretion, including the merits.

In examining these factors, “the Board takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.”

Apple v. Fintiv, Inc., IPR2020-00019, Paper 15 at 8 (P.T.A.B. May 13, 2020)

(“*Fintiv II*”); *see TPG* at 58 (*quoting* 35 U.S.C. § 316(b)).

B. Standards For Showing Anticipation or Obviousness

To establish anticipation under § 102, a petitioner must identify each and every element in a claim, arranged as recited in the claim, in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008) (“To anticipate a claim, a single prior art reference must expressly or inherently disclose each claim limitation. . . . But disclosure of each element is not quite enough—this court has long held that anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention ***arranged as in the claim***”) (emphasis original; internal citation and punctuation omitted). In other words, anticipation is not proven merely by combining the teachings of multiple distinct embodiments in a prior art reference. *Microsoft Corp. v. Biscotti, Inc.*, 878 F.3d 1052, 1069 (Fed. Cir. 2017) (“anticipation is not proven by ‘multiple, distinct teachings [within a single reference] that the artisan might somehow combine to

achieve the claimed invention””; quoting with approval *Microsoft Corp. v. Biscotti Inc.*, IPR2014-01457, Paper 59 at 29-30 (P.T.A.B. Mar. 17, 2016).)

To make a *prima facie* showing of obviousness under 35 U.S.C. § 103, the Petition must, among other requirements, fulfill the requirements set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966), including demonstrating that the cited references disclose each element of a challenged claim. *In re Magnum Oil Tools Int’l.*, 829 F.3d 1364, 1376 (Fed. Cir. 2016); *see also Apple Inc. v. Contentguard Holdings, Inc.*, IPR2015-00442, Paper 9 at 12-13 (PTAB July 13, 2015).

Petitioner also has the burden to show there would have been some motivation to combine the asserted prior art, and that the proposed combination would render the patented claims obvious. “Obviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination.” *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (internal citation omitted); *see also In re Magnum Oil Tools Int’l.*, 829 F.3d at 1376. Even if individual modifications or choices were obvious, a petition must explain why making all of the changes at once would be obvious. *Apple Inc. v. Contentguard*, Paper 9 at 16-17 (“[T]he mere fact that individual changes might have been obvious does not make doing all of the changes at once obvious”).

The Federal Circuit has found that, even for an obviousness challenge based on a single reference in view of the knowledge and skill of a POSITA, there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful, otherwise a skilled artisan would not arrive at the claimed combination. *In re Stepan Co.*, 868 F.3d 1342, 1345-46 (Fed. Cir. 2017). In other words, when a gap in a single prior art reference requires filling with, for example, the knowledge of one of a POSITA, there must be a further showing that the POSITA would have arrived at the claimed invention.

The lack of a technological obstacle to combining references, in and of itself, does not justify a finding of obviousness. *See In re Omeprazole Patent Litig. v. Apotex Corp.*, 536 F.3d 1361, 1380-81 (Fed. Cir. 2008). A reason for combining disparate prior art references is critical and should be made explicit. *InTouch Techs., Inc. v. VGo Communs., Inc.*, 751 F.3d 1327, 1351 (Fed. Cir. 2014) (internal citation omitted).

Hindsight analysis is inappropriate; obviousness must be measured “at the time the invention was made.” *Ortho-McNeil Pharm. v. Mylan Labs*, 520 F.3d 1358, 1364 (Fed. Cir. 2008) (emphasis original). A petition must demonstrate a rationale to combine prior art references without relying on the patent disclosure itself. *Apple Inc. v. Contentguard*, Paper 9 at 15, 17; *see also P&G v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 995 (Fed. Cir. 2009). The Petitioner must not

use the patent as a roadmap. *In re NTP, Inc.*, 654 F.3d 1279, 1299 (Fed. Cir. 2011) (internal citation omitted); *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

III. EACH OF THE SIX *FINTIV I* FACTORS WEIGHS STRONGLY IN FAVOR OF DENYING REVIEW UNDER SECTION 314

A weighing of the six *Fintiv I* factors demonstrates that efficiency and the integrity of the AIA are best served by denying institution. Indeed, each factor favors denying institution of review.

A. The Pending District Court Litigation Involving Petitioner and the ’330 Patent and the Nine Additional District Court Litigations Also Involving the ’330 Patent

The ’330 Patent (as well as six other patents) has been asserted by Patent Owner against Petitioner in the WDTX: *Ocean Semiconductor LLC v. Western Digital Technologies, Inc.*, No. 6:20-cv-01216 (W.D. Tex.). (Ex. 1013 at ¶¶93-112.) A Claim Construction Hearing is set for December 8, 2021, and trial is scheduled to begin December 7, 2022. (Ex. 2001.)

The ’330 Patent has also been asserted against unrelated defendants in six other district court actions pending in the WDTX—*Ocean Semiconductor LLC v. STMicroelectronics Inc.*, No. 6:20-cv-01215 (W.D. Tex.) (Ex. 2002 at ¶¶ 81-101); *Ocean Semiconductor LLC v. Silicon Labs, Inc.*, No. 6:20-cv-01214 (W.D. Tex.) (Ex. 2003 at ¶¶ 71-90); *Ocean Semiconductor LLC v. Renesas Elecs. Corp., et al.*, No. 6:20-cv-01213 (W.D. Tex.) (Ex. 2004 at ¶¶ 71-91); *Ocean Semiconductor LLC*

v. NXP Semiconductors NV, et al., No. 6:20-cv-01212 (W.D. Tex.) (Ex. 2005 at ¶¶ 80-99); *Ocean Semiconductor LLC v. NVIDIA Corp.*, No. 6:20-cv-01211 (W.D. Tex.) (Ex. 2006 at ¶¶ 81-100); and *Ocean Semiconductor LLC v. MediaTek Inc., et al.*, No. 6:20-cv-01210 (W.D. Tex.) (Ex. 2007 at ¶¶ 70-89). The schedule for the Claim Construction Hearing and trials in each of those six additional matters is identical to the action involving Petitioner—the *Markman* Hearing set for December 8, 2021, and trial set to begin December 7, 2022. (Exs. 2008-2013.)

In addition, the '330 Patent is asserted in an eighth district court action pending in the EDTX—*Ocean Semiconductor LLC v. Huawei Device USA Inc., et al.*, No. 4:20-cv-00991 (E.D. Tex.). (Ex. 2014 at ¶¶ 70-89.) The Claim Construction Hearing in that action is set for January 5, 2022, and the Final Pretrial Conference is scheduled for August 15, 2022. (Ex. 2015.)

Finally, the '330 Patent has still further been asserted against additional defendants in ninth and tenth district court actions that are pending in the DMASS—*Ocean Semiconductor LLC v. Infineon Techs. AG, et al.*, No. 1:20-cv-12311 (D. Mass.) (Ex. 2016 at ¶¶ 82-102); and *Ocean Semiconductor LLC v. Analog Devices, Inc., et al.*, No. 1:20-cv-12310 (D. Mass.) (Ex. 2017 at ¶¶ 72-92).

B. *Fintiv I* Factor 1: No Stay Motion Is Pending in Any of the Ten District Court Actions and No Evidence Exists that One May Be Entered

Fintiv I Factor 1—whether the district court has granted a stay or evidence exists that one may be granted if an IPR proceeding is instituted—favors denial because Petitioner has *not* filed any motion to stay the district court proceeding in view of the instant Petition, nor have any of the defendants in any of the nine other pending district court actions where the '330 Patent is asserted. While a district court determines whether to grant a stay based on the facts of each case, there is no evidence here to suggest that any of the three district courts in any of the ten pending district court proceedings would grant such a stay, much less that all three district courts would issue stays across all ten actions. In fact, a stay of Petitioner's district court action is extremely unlikely and the likelihood that that action *and* the nine other actions covering all of the pending litigation involving the '330 Patent would *all* be stayed is virtually non-existent.

Petitioner states that it “intends to move for a stay of the district-court case if the Board institutes this IPR proceeding.” (Pet. at 5.) Setting aside that Petitioner's intent (as opposed to a filed motion itself) has no weight in the *Fintiv I* analysis, such a motion, even if filed post-institution, is unlikely to succeed given Judge Albright's compressed trial schedule. At the same time, for the one parallel action pending in the EDTX, until a stay motion is actually filed, courts in the

EDTX “have uniformly denied motions for a stay” “when the PTAB has not yet acted on a petition for *inter partes* review.” *Trover Group, Inc. v. Dedicated Micros USA*, No. 2:13-cv-1047-WCB, 2015 U.S. Dist. LEXIS 29572, at *17 (E.D. Tex. Mar. 11, 2015) (Bryson, J.).

The district court litigation against Petitioner as well as six other actions that also involve the ’330 Patent in the WDTX are all pending before Judge Albright. (See Exs. 2010; 2017-2022.) To date, Judge Albright ***has not granted an opposed motion to stay pending resolution of an inter partes review.*** See *Kerr Machine Co. v. Vulcan Indus. Holdings, LLC*, Case No. 6:20-CV-00200-ADA, Dkt. No. 76 (W.D. Tex. Apr. 7, 2021) (denying a motion to stay because the trial date would occur before the date of the final written decision from the PTAB, the Seventh Amendment guarantees a right to jury trial, and the district court case would completely resolve issues including infringement and all potential grounds of invalidity and damages). This is true whether or not an IPR has been instituted.

Indeed, the cases in which Judge Albright has denied such a stay motion are legion. For example, in *Kerr Machine Co. d/b/a Kerr Pumps v. Vulcan Industrial Holdings, LLC*, No. 6-20-cv-00200-ADA, (W. D. Tex. Aug. 2, 2020) (text order), Judge Albright listed the following reasons (all of which are equally applicable here) for denying the motion to stay:

(1) No institution had taken place. (2) Even if the PTAB institutes, the Court anticipates that the trial date will occur before the final written

decision. (3) Allowing this case to proceed to completion will provide a more complete resolution of the issues including infringement, all potential grounds of invalidity, and damages. (4) The Court believes in the Seventh Amendment. (5) Plaintiff opposes the stay.

When the defendant there subsequently filed a mandamus petition with the Federal Circuit, arguing that Judge Albright had adopted rules that set an “impossible barrier” for infringement cases to be stayed while they are under review at the PTAB, the petition was denied. *In re Vulcan Indus. Holdings, LLC*, 830 F. App’x 318, 319 (Fed. Cir. 2020). Even after an IPR was instituted there, the Court again denied a motion to stay for all of the same reasons set out in its prior order (with the sole exception that, by that time, institution had taken place). *Kerr Machine Co.*, No. 6-20-cv00200, Dkt. 76 at 3-6 (W. D. Tex. Apr. 7, 2021).

Judge Albright has offered consistent reasoning in other matters in denying similar motions to stay pending IPR. *See, e.g., Continental Intermodal Group - Trucking LLC v. Sand Revolution LLC et al.*, No. 7-18-cv-00147 (W.D. Tex. July. 22, 2020) (text order). Thus, there is no need to speculate as to how Judge Albright might rule on a motion to stay in any of the seven WDTX actions or if he will even consider one because his repeated and consistent reasoning is equally applicable here: (1) even if an IPR is instituted, the litigation trial date in at least one of the ten district court actions is scheduled to occur before the statutory deadline for a FWD (*see Fintiv I* Factor 2, discussed in the next section); (2) allowing the district court proceedings to proceed to completion will provide a

more complete resolution of the issues including infringement, all potential grounds of invalidity, and damages; (3) nothing here changes the Court's oft-repeated expression of belief in the Seventh Amendment; and (4) any motion to stay the district court action pending resolution of the IPR would be opposed by Patent Owner.

This is all the more true given that there are *five additional patents* asserted in the district court action against Petitioner as to which no defendant has filed any Petition (*see* Ex. 1013 at ¶¶93-153, 175-214)² and *an additional two patents* in other district court actions where the '330 Patent is also asserted that are not the subject of any IPR petition and thus will only be considered in the district court proceedings (U.S. Patent Nos. 8,120,170 and 8,847,383). (*See, e.g.*, Ex. 2002 at ¶¶162-182; and Ex. 2006 at ¶¶161-200.) As such, granting of stays across the ten actions would substantially delay resolution of a host of additional issues unrelated to the '330 Patent—something that district courts are very unlikely to allow.

The proper analysis under Factor 1 of *Fintiv I* does not require absolute certainty as to what the Court will do. Rather, the analysis requires examining whether evidence exists that a stay is *likely* to be granted if a proceeding is

² A third party—Applied Materials—recently filed IPR Petitions challenging certain claims of these five patents, but the deadlines for institution decisions are not until mid- to late-February, 2022, several months after the institution deadline of the present Petition.

instituted. Here, there simply is no evidence before the Board that Petitioner has even committed to moving for a stay if an IPR trial is instituted (only that a vague statement that it “intends” to do so). Nor is there even one speculative factor suggesting that a stay would likely be granted if Petitioner were to file such a motion. On the other hand, the general practice of courts in both the EDTX and WDTX and all of those courts’ prior consistent rulings only underscore the *unlikelihood* that a mere hypothetical motion to stay pending IPR would be granted.

Accordingly, this factor is *not* neutral as Petitioner argues (Pet. at 5), but rather weighs strongly in favor of denial.

C. *Fintiv I* Factor 2: The Trial Dates in Eight Pending Litigations Are Either More Than Two Months Before, or In-Line with, the Board’s Projected Statutory Deadline For an FWD

Contrary to the Petition (at 5), trial dates have now effectively been set in eight of the ten district court actions involving the ’330 Patent—including the one involving Petitioner. As such, Factor 2—the proximity of any district court trial date to the Board’s projected statutory deadline for a final written decision—favors denial of institution. “If the court’s trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution under *NHK*.” *Fintiv I*, IPR2020-00019, Paper 11, at 9.

First, in the EDTX proceeding, the Final Pretrial Conference is set for August 15, 2022. (Ex. 2015 at 4.) While the accompanying trial is not formally set, trials typically begin about three weeks after the Final Pretrial Conference which here would be on September 6, 2022— more than two and a half months before the November 26, 2022, FWD deadline.³ While that action does not involve Petitioner, it will address the validity of the '330 Patent, including all of the claims challenged in the Petition, and, as such, weighs heavily against IPR institution.⁴

Indeed, numerous Board decisions, including *Fintiv*, have held that trial between one to three months before the FWD deadline weighs in favor of denying institution. *Fintiv II*, IPR2020-00019, Paper 15 (“Because the currently scheduled District Court trial is scheduled to begin ***two months*** before our deadline to reach a final decision, this factor weighs somewhat in favor of discretionary denial in this case”); *E-One, Inc. v. Oshkosh Corp.*, IPR2019-00161, Paper 16 at 12 (P.T.A.B. May 15, 2019) (***one month***); *E-One, Inc. v. Oshkosh Corp.*, IPR2019-00162, Paper 16 at 12 (P.T.A.B. June 5, 2019) (***one month***); *Netflix, Inc. v. Uniloc 2017 LLC*, IPR2020-00008, Paper 13 at 9-10 (P.T.A.B. Apr. 13, 2020) (***two months***); *Next Caller Inc. v. TRUSTID, Inc.*, IPR2019-00961, Paper 10 at 14- 15 (P.T.A.B. Oct. 16, 2019) (***three months***); *Next Caller Inc. v. TRUSTID, Inc.*, IPR2019-00962,

³ In addition, the seven WDTX actions are all set for trial beginning December 7, 2022—less than two weeks after the FWD deadline. (Exs. 2017-2022.)

⁴

Paper 10 at 14-15 (P.T.A.B. Oct. 16, 2019) (*three months*); *Stanley Black & Decker, Inc. v. Zircon Corp.*, IPR2021-01701, Paper 10 at 5 (P.T.A.B. Apr. 19, 2021) (*three months*).

In this regard, Petitioner’s argument that its own district court action has the highest docket number suggesting that it will be the last to trial (Pet. at 6) is both unfounded and inapposite. All of the WDTX actions are currently on the same schedule and there is no reason to believe that Petitioner’s will be delayed simply on the basis of docket number. Regardless, the fact that all of the issues surrounding the ’330 Patent will be tried—first in the EDTX and then in one or more WDTX actions (regardless of whether or not they involve Petitioner)—is more than sufficient to conclude that the Board should deny institution. *Fintiv I*, IPR2020-00019, Paper 11 at 6.

While Petitioner contends that it is unlikely that an actual trial will occur before the Board issues an FWD because of “the impact and uncertainty created by the COVID-19 pandemic and the resulting trial delays” (Pet. at 5), there is no evidentiary basis to speculate that trials in any of the ten pending district court proceedings would be postponed because of COVID. Indeed, this kind of baseless speculation is routinely rejected by the Board. *See, e.g., Samsung Elecs. Co. v. Ancora Techs., Inc.*, IPR2020-01184, Paper 11, at 13 (P.T.A.B. Jan. 5, 2021). This Board is unequivocal that it takes a court’s current schedule at “face value.” *See*

Fintiv II, IPR2020-00019, Paper 15 at 13 (“We generally take courts’ trial schedules at face value absent some strong evidence to the contrary”).

Also, the potential for significant COVID-19 disruptions to the trial dates in both the EDTX and WDTX is highly unlikely where an effective vaccine roll-out is already well under way, and both districts have been conducting jury trials throughout the present pandemic. (*See, e.g.*, Ex. 2018 (“Judges Rodney Gilstrap and Amos Mazzant III of the Eastern District of Texas oversaw two IP trials each last month [March]. . . Both judges have more planned for April, as does Judge Alan Albright of the Western District of Texas”))

In arguing about trial dates in the WDTX, Petitioner also argues that there are “over 730 other patent cases currently pending before the same judge” and “the tendency for trial dates in the Western District of Texas to be pushed back in general.” (Pet. at 5.) But Judge Albright’s standing order has shot down any such speculation that trial would be pushed back: “[a]fter the trial date is set, the Court will not move the trial date except in extreme situations.” (*See, e.g.*, Ex. 2019 at 6.) No such “extreme situations” exist here, and Petitioner has cited none.

Significantly, no party in any of the eight pending actions in the EDTX and WDTX where a trial schedule has been set has moved to reset the trial date and there are no present or anticipated “extreme situations” to warrant a delay.

To the contrary, while Judge Albright has never stayed a case for an IPR, he has advanced trials to start sooner than their originally scheduled date. For example, in *Netlist v. SK Hynik Inc.*, Judge Albright moved the trial date up by 6 months from December to July. No. 6:20-cv-00194-ADA, 2021 U.S. Dist. LEXIS 47242, at *24 (W.D. Tex. Feb. 2, 2021) (“The Court *sua sponte* reconsiders its previous decision to delay the Markman hearing and subsequent scheduling and rescinds it”). Hence, even discounting the possibility that Judge Albright could move up the trial date in the pending action against Petitioner, the Board here should weigh whether to institute based on the existing scheduling orders and trial schedules set in both the EDTX and the WDTX without regard to the parade of hypotheticals and possibilities trotted out by Petitioner.

The facts here are unlike those in *Sand Revolution* cited by Petitioner. (Pet. at 5.) There, the parties *jointly* sought two extensions of the trial date in a related proceeding, which the district court granted. *Sand Revolution II LLC v. Continental Intermodal Group*, IPR2019-0139, Paper 24 at 8 (P.T.A.B. June 16, 2020). The district court identified only a date at which trial might occur: “Nov. 9, 2020 (or as available),” which the Board found “indicates a continuing degree of recognized uncertainty of the court’s schedule by the court.” *Id.* at 9.

That is not the case here—in none of the eight EDTX and WDTX proceedings has any party sought an extension that will affect the trial date, nor has

the court in any of those actions *sua sponte* changed the trial date. There is also no “or as available” or similar qualifier for the trial dates that have been set.

Even assuming *arguendo* that there is a possibility of a delay, such a delay would be irrelevant to the Board exercising its discretion to deny institution under § 314(a). Given that trial in the EDTX proceeding is currently scheduled to conclude at a time likely *more than two months before* any FWD would be due in an instituted proceeding here, there is no plausible evidence that such a speculative delay would push trial of the validity of the ’330 Patent until after the FWD deadline. *See Apple Inc. v. Maxell, Ltd.*, IPR2020-00203, Paper 12 at 10 (P.T.A.B. Jul. 6, 2020) (“Although delays due to COVID-19 pandemic may be a real possibility . . . even a delayed trial may precede a final written decision”). Accordingly, Factor 2 favors denial.

D. *Fintiv I* Factor 3: There Has Been Immense “Investment in the Parallel Proceedings by the Court and Parties”

Contrary to the Petition (at 6), pretrial schedules and trial dates *have* been set in eight of the ten district court actions involving the ’330 Patent—including the one involving Petitioner—and Patent Owner has served voluminous infringement contentions in each of those eight actions. Even more resources will have been expended in the next few months, i.e., prior to the deadline for potential institution. As such, *Fintiv I* Factor 3—the amount of investment in the parallel proceeding by the district court and the parties—favors discretionary denial.

In particular, defendants in all ten of the actions where the '330 Patent is asserted have already filed dispositive motions (with Judge Mazzant denying the motion filed in the single EDTX action and the parties in the other nine actions awaiting decisions). Additionally, the Petitioner, Patent Owner, the other defendants in the six other WDTX actions and the additional EDTX action, and the two district courts there have already invested substantial resources in those proceedings and will have invested even more by the institution deadline of November 20, 2021. For example, by that date, the parties will have spent considerable time and resources in completing:

- Briefing for Petitioner's Motion to Dismiss for Failure to State a Claim under Rule 12(b)(6) (briefing fully completed on April 21, 2021; *see* Ex. 2020) as well as similar motions filed in each of the other seven actions;
- Infringement and invalidity contentions in each of the eight actions (infringement contentions served July 2, 2021, or August 16, 2021, and invalidity contentions to be served by August 27, 2021, or September 8, 2021) (Exs. 2001, 2008-2013, 2015 at 10);
- Briefing and decision on Patent Owner's Motion to Consolidate the seven parallel actions in WDTX (briefing fully completed June 17, 2021, and motion decided by Judge Albright July 15, 2021—*see* Ex. 2021);

- Briefing for a Motion to Transfer Venue filed by third-party defendants Renesas Electronics Corp. and Renesas Electronica America, Inc. in one of the seven pending WDTX actions (briefing completed July 20, 2021; *see* Ex. 2022); and
- Claim construction briefing in preparation for a *Markman* Hearing (briefing to be fully completed in the seven WDTX actions on November 19, 2021, and the opening brief to be filed in the EDTX action on November 8, 2021—*see* Exs. 2001, 2008-2013, 2015 at 2).

Fintiv I provides that a claim construction order by the time of institution may be “sufficient” to favor denial, but it does not say that a claim construction order is *necessary* to favor denial. *See Fintiv I* at 9. That is because “the weight to give claim construction orders may vary depending upon a particular district court’s practices” including whether the court “may postpone significant discovery until after it issues a claim construction order.” *Id.* at 10, n.17.

Here, the lack of a claim construction order can be given less weight because: (1) the parties will have completed all claim construction briefing in all seven of the WDTX proceedings before the institution deadline and (2) the Court will be holding its claim construction hearing about 18 days thereafter. (*See* Exs. 2010, 2017-2022 at 2 (hearing set for December 8, 2021).) Undoubtedly, both the parties and Judge Albright will have devoted substantial time preparing for the

claim construction hearing and—given the short time frame—it would be highly unlikely that Petitioner could prepare, file, have fully briefed, and have decided any motion to stay between November 20 and December 8, 2021.

This case is akin to *Cisco Sys., Inc. v. Ramot at Tel Aviv Univ., Ltd.*, IPR 2020-00122, Paper 15 (P.T.A.B. May 15, 2020). There, *Fintiv I* Factor 3 favored denying institution even though no claim construction order had been issued. At the time of the institution decision, the parties had completed invalidity contentions and claim construction briefing, just as they will have here. As the Board stated:

[t]o be sure, the district court has yet to issue a claim construction order or make other determinations on the merits. Considering the current investment in the invalidity and construction contentions, though, this factor weighs somewhat in favor of discretionary denial.

Id. at 9. Here, this factor favors denial for the same reasons.

Petitioner contends that it was diligent in filing this Petition “less than five months” after Patent Owner filed the Complaint in the parallel district court proceeding. (Pet. at 6.) Conspicuously absent in the Petition, however, is any mention of the fact that Petitioner was actually on notice of the ’330 Patent since at least October 2020 when it received a notice letter alleging infringement of the ’330 Patent from Patent Owner. (Ex. 2023.) If Petitioner was truly diligent, it would have filed its Petition months before May 2021. That it did not is material to the holistic analysis because it substantially increases the investment and consumption of resources by both the parties and the three district courts in all ten

of the district court proceedings leading up to the date of the institution decision.

By waiting seven months from when it first became aware of its infringement of the '330 Patent to file the Petition, Petitioner demonstrated that it does not seek this venue as an “effective and efficient alternative to district court litigation” as contemplated by the AIA. *NHK*, IPR2018-00752, Paper 8, at 20. Petitioner’s conclusory statement that it has been diligent in filing this Petition is belied by the record, which indicates that Petitioner actually seeks to use the Board (and its resources) as a second bite at the apple—co-litigating its challenge to the validity of the '330 Patent in a different venue. That is plainly neither the intent nor the objective of the AIA. *See id.*

Accordingly, *Fintiv I* Factor 3 weighs in favor of discretionary denial.

E. *Fintiv I* Factor 4: There Is Complete “Overlap Between Issues Raised in the Petition and in the Parallel Proceedings”

Contrary to the Petition (at 7-8), Patent Owner has asserted in the district court actions all of the claims that Petitioner challenges in the Petition. As such, *Fintiv I* Factor 4—the extent of overlap between issues raised in the petition and in any parallel proceeding—favors discretionary denial as it is beyond dispute that “the petition includes the same or substantially the same claims.” *Fintiv I*, IPR2020-00019, Paper 11 at 12. Specifically, the only claims being challenged by Petitioner in this IPR—claims 19-21—are also asserted in the parallel district court

litigation. (*See* Ex. 2024.) As such, there is complete overlap as to the claims in both venues.

1. Petitioner’s Proffered Stipulation to Not Pursue Invalidity on the Same Grounds Has No Effect Because It Does Not Cover Any Ground Raised or that Could Have Been Raised

Petitioner contends that it will “stipulate that it will not pursue invalidity on the same grounds in district court” (Pet. at 7) and that this purported stipulation eliminates overlap. The stipulation is so narrow, however, that it means nothing.

The stipulation has little to no practical effect. First, the stipulation is extraordinarily narrow. Petitioner agrees to not pursue the “same grounds.” The Board has given little weight to such stipulations in the past. For example, Petitioner’s stipulation does not cover *any ground raised or that could have been raised* in the IPR. Thus, it is not analogous to stipulations to which the PTAB has given weight. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18–19 (P.T.A.B. Dec. 1, 2020) (precedential) (stipulation expressly covered “any ground that could be raised”).

Recently, the Board denied institution after evaluating such a stipulation. *See Samsung Elec. Co., Ltd. v. Clear Imaging Research, LLC*, IPR2020-01402, Paper 12 (P.T.A.B. Mar. 4, 2021). Specifically, the Board evaluated a substantially identical stipulation to the purported one offered here and concluded:

Petitioner’s stipulation does not mitigate the “concerns of inefficiency and the possibility of conflicting decisions,” nor does it ensure that an

inter partes review is a “true alternative” to the parallel District Court proceeding. In particular, Petitioner’s stipulation is narrow, not a broad stipulation that includes “any ground raised, or that could have been reasonably raised.”

Id. at 23 (citations omitted; emphasis original). “[A] broader stipulation that Petitioner would not ‘pursue any ground raised or that could have been reasonably raised in an IPR’ might have better addressed these concerns in a much more substantial way.” *Google LLC v. Personalized Media Commc’ns, LLC*, IPR2020-00720, Paper 16 at 8-9 (P.T.A.B. Aug. 31, 2020) (finding that a similarly narrow stipulation caused this factor to weigh only “marginally” against denying institution).

2. **Petitioner’s Proffered Stipulation Has No Effect Because Petitioner Does Not Stipulate to Not Asserting The Same Prior Art References in Different Combinations**

Indeed, Petitioner’s proposed stipulation would not remove the problematic overlap. Even if the Board instituted an IPR, Petitioner has made *no commitment* to not asserting the same pieces of prior art in different combinations in the parallel district court litigation. For example, Petitioner has not stipulated to not using Levy (Ex. 1004), Wong (Ex. 1005), Brown (Ex. 1006), and/or Adel (Ex. 1007) in different combinations. As a result, both the Board and the district court would be analyzing and interpreting the same pieces of prior art, duplicating efforts, and potentially reaching inconsistent results. *Apple Inc. v. Maxell, Ltd.*, IPR2020-00203, Paper 12 at 14 (PTAB July 6, 2020) (“[A]lthough the obviousness ground

asserted here is not identical to either ground in Petitioner’s final invalidity contentions, the assertion of Waldroup and Nakayama in both proceedings may result in duplication of work and create the potential for inconsistent decisions.”).

3. None of Petitioner’s Co-Defendants Have Committed to Not Asserting the Same Prior Art Reference Grounds in Parallel District Court Proceedings

Regardless of how Petitioner’s offered stipulation that it will not pursue invalidity on the same grounds in this district court is interpreted, none of the co-defendants in the nine other parallel district court litigations have made the same commitment. In fact, in opposing Patent Owner’s Motion to Consolidate the seven parallel actions in the WDTX, most defendants explicitly indicated that “should Ocean be successful in the IPRs filed by Western Digital,” they “should not be limited in terms of what prior art [they] assert[] based on the prior art Western Digital chose to raise or not raise in its IPR proceedings.” (*See* Ex. 2025 at 9; *see also* Ex. 2026 at 8 (“That limitation does not apply to any other Defendant”); Ex. 2027 at 7 (“Silicon Labs—who has not filed IPRs and is not a real party in interest to Western Digital’s IPRs—is not bound by that stipulation”); Ex. 2028 at 5 (“But MediaTek, who has not yet filed IPRs and is not a real party in interest to Western Digital’s IPRs, is not bound by that stipulation”) Ex. 2029 at (“Even the invalidity issue weighs against commonality because Western Digital has filed IPR petitions

that will impose preclusive effects on Western Digital if instituted that would not apply to NXP”)). Consequently, there will undoubtedly be total, or near total, overlap of issues from the present IPR to numerous district court actions.

For the foregoing reasons, Factor 4 weighs heavily in favor of discretionary denial.

F. *Fintiv I* Factor 5: The Petitioner and the Defendant in the Parallel Proceeding Are the Same Party

Fintiv I Factor 5—whether the Petitioner and the defendant in any parallel proceeding are the same party—favors discretionary denial because Petitioner is a defendant in one of the parallel proceedings in the WDTX. *See Fintiv II*, IPR2020-00019, Paper 15 at 15.

Petitioner nevertheless contends that this factor is neutral because “the additional real-parties-in-interest are not” involved in the parallel proceeding. (Pet. at 8.) For the purpose of this factor, however, the Board has previously considered and rejected just this exact line of argument by Petitioner and found that this factor favors denial because “Petitioner WDT and Patent Owner are the defendant and plaintiff, respectively, in the Parallel Litigation and Petitioners WDC and SanDisk have corporate relationships with WDT.” *Western Digital Corp. v. Martin Kuster*, IPR2020-01410, Paper 13 at 15 (P.T.A.B. Feb. 17, 2021); *see also Code200, UAB v. Luminati Networks Ltd.*, IPR2020-01358, Paper 11 at 10 (P.T.A.B. Feb. 2, 2021)

(finding this factor to favor denial “[g]iven the commonality of most of the parties in [the IPR] and [the] district court case”).

Just as importantly, the PTAB has explicitly instructed Petitioner that:

Even when a petitioner is unrelated to a defendant, however, if the issues are the same as, or substantially similar to, those already or about to be litigated, or other circumstances weigh against redoing the work of another tribunal, the Board may, nonetheless, exercise the authority to deny institution. *An unrelated petitioner should, therefore, address any other district court or Federal Circuit proceedings involving the challenged patent to discuss why addressing the same or substantially the same issues would not be duplicative of the prior case even if the petition is brought by a different party.*

Fintiv I, IPR2020-00019, Paper 11, at 14. Petitioner, however, fails to discuss any of the nine other actions where the ’330 Patent is asserted—actions where the same issues raised by the Petition will assuredly be considered.

G. *Fintiv I* Factor 6: Other Circumstances Further Favor Non-Institution

Fintiv I Factor 6—other circumstances that impact the Board’s exercise of discretion, including the merits—also favors discretionary denial.

Other than stating in a conclusory fashion that its grounds are “strong” while referring summarily to the remainder of the Petition (Pet. at 8), Petitioner offers nothing else for this factor—ignoring highly relevant facts weighing heavily against institution. Petitioner’s grounds are not strong, however, and even if they have some credibility, they are not strong enough to outweigh all of the other

factors that weigh, as established above, in favor of discretionary denial. When considered along with the surety that the district court proceedings will continue and will consider not only all of the issues alleged in the Petition, but also numerous other issues as to the '330 Patent and other patents, it simply does not make sense for the Board to institute IPR here.

1. The Petition's Grounds Are Weak

While the Petition alleges four grounds of unpatentability—one based on alleged anticipation and three based on alleged obviousness—Petitioner fails to present sufficient evidence to even make out a *prima facie* case of obviousness. As discussed further below, Petitioner essentially concedes that the primary reference—Levy (Ex. 1004)—does *not* teach all of the elements of the challenged claims in any single embodiment, thereby highlighting the weakness of its anticipation Ground 1, by arguing for its second ground that it would have been obvious to combine the embodiments of Levy. (Pet. at 51-53.)

Without an anticipatory reference, Petitioner is left combining various teachings to fill in multiple, conceded missing elements for each of its Grounds 2-4. The weakness of these contentions is brought into focus by Petitioner's failure to present any cognizable evidence that those of ordinary skill would have been motivated to combine the teachings of the several references to arrive at the claimed invention.

In sum, Petitioner's invalidity grounds are not strong, further weighing against institution.

2. Petitioner Has Not Challenged Other Asserted Patents So that Resolving this IPR Will Not Resolve Any of the Ten District Court Proceedings

As discussed above with respect to the unlikelihood of a district court stay (*see* Section III.B.), even if the Board instituted on this Petition, there are still other patents asserted against Petitioner and the other defendants in the various parallel district court proceedings that have not been challenged by Petitioner and, in some cases, not by anyone else either. (The ones challenged by third party Applied Materials in recently-filed IPRs are on the order of three months later than the present Petition and, thus, are even less likely to prompt a stay of any district court proceeding.) As a result, those district court actions will undoubtedly proceed and there is no evidence that institution in this IPR Petition would promote any efficiencies. To the contrary, it is all but certain that the parties will incur duplicate expenses and multiple district courts will have already invested time into dispositive motions, claim construction, and contentions by the time that this Board decides whether or not to institute trial.

Additionally, the products for the '330 patent accused of infringement are substantially, if not exactly, the same as those accused of infringement for the other patents asserted against Petitioner. (*See* Ex. 1013 at ¶¶9-19.) As such, resolving

the validity of a few claims of the '330 Patent will not resolve the issue of infringement or damages in the parallel district court litigation.

As the Board has explained, an objective of the AIA is to provide “an effective and efficient *alternative* to district court litigation.” *NHK*, IPR2018-00752, Paper 8, at 20. Where no such “effective and efficient” alternative is needed in view of a district court’s just and speedy adjudication of the same issue, there is no need for the Board to unnecessarily duplicate the district court’s efforts at the expense of the Board’s time and resources—which are appropriately and best applied elsewhere. *Id.*

H. Balancing the Six *Fintiv I* Factors Weighs Heavily in Favor of Denying the Petition on a Discretionary Basis

The Board takes a “holistic” approach when weighing the *Fintiv I* Factors. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 20 (P.T.A.B. Dec. 1, 2020) (“We take ‘a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review’ when considering the six *Fintiv* factors. *Fintiv* Order 6.”). Here, *all six* factors weigh in favor of the Board exercising its discretion to deny the Petition under § 314(a).

On this record, instituting an IPR would not promote efficiency or the integrity of the system.

IV. CLAIM CONSTRUCTION

Petitioner proposes that none of the claim terms in the challenged claims require express claim construction. (Pet. 17.) Without conceding that this is the case, Ocean accepts this proposition for purposes of this Preliminary Response alone.

V. OVERVIEW OF THE '330 PATENT

As Petitioner concedes (Pet. at 8), the '330 patent is directed to monitoring and/or controlling a semiconductor fabrication process, and specifically to “concurrently measuring critical dimensions and overlay ... and controlling operating parameters to refine the process in response to the measurements.” (Ex. 1001 at 1:7-12.) The focus of the '330 patent, therefore, is to *concurrently* measure overlay and one or more critical dimensions (“CDs”), such as the width and spacing of interconnecting lines. (*See, e.g., id.* at 1:64-67.)

This concurrent measuring function is taught to be performed, as an example, by having grating structures residing on, or within, an underlying layer as well as grating structures overlying those structures and on, or in, an overlying layer. (*Id.* at 7:38-42.) The top grating structures are used for CD measurements (*Id.* at 8:61-4, 19:14-26 (claim 2)) and the combination of the underlying and overlying grating structures are used for the overlay (*Id.* at 8:28-30, 19:23-24 (claim 2)). When the measurements for overlay and CD are taken, they are

compared to a known acceptable range of values. (*Id.* at 14:49-51, 21:16-17 (claim 19).) Any measurement reading outside of the acceptable range of values triggers a feedback or feedforward adjustment to move the overlay and/or CD process back into spec. (*Id.* at Abstract, FIG. 14, 4:21-23, 21:23-30 (claim 19).)

VI. GROUND 1 IS MERITLESS BECAUSE PETITIONER HAS FAILED TO SHOW THAT ALL ELEMENTS OF THE CHALLENGED CLAIMS ARE PRESENT IN A SINGLE EMBODIMENT OF LEVY

A. The Levy Disclosure and Its Limitations

The Levy patent (Ex. 1004) generally teaches and claims a metrology tool that can be configured to take a variety of measurements using light sources and one or more detectors.

Levy includes 27 Figures, 155 columns of specification, and 100 claims. Not surprisingly given this verbosity, Levy describes numerous different embodiments of its alleged invention. As but one confirmation of this fact is that each of the 27 Figures is described as showing “an embodiment,” i.e., there are at least 27 embodiments (Ex. 1004 at 34:1-35:19; *see also* 35:20-22: “specific embodiments thereof are shown by way of example”). In fact, *there are literally hundreds more separately-called-out embodiments* throughout the following 115 columns of Detailed Description. Indeed, a word search of the specification readily finds (among other mentions of “embodiments”) fully 242 mentions of “an embodiment,” 147 “additional embodiments,” twenty “alternative embodiments,”

seven uses of “one embodiment,” and three discussions of “alternate embodiments.” It is as if the patentee threw in every last bit of knowledge that it possessed without bothering to make any connections between them.

Notably, Levy is specific to various *tools* but provides very little specific disclosure as to how the various described tools can be *used*. In fact, the majority of the figures show the arrangement of the light sources and detectors on a tool, but only Fig. 8 describes an actual specimen that could be used with the tool. In particular, there is no disclosure as to how the single layer CD features of Fig. 8 could be used to *concurrently* measure a dual layer overlay pattern. A POSITA at the time would have been left to determine how to use the combinations of light sources and detectors to perform various measurements.

Figs. 3-7 describe embodiments where the overlay and critical dimension are the first and second properties of a specimen that can be measured. (Ex. 1004 at 37:57-59, 38:62-63.) Fig. 3 has a single light source and single detector. Fig. 4 has two light sources and a single detector. Fig. 5 has multiple light sources as well as multiple detectors and uses different areas of the specimen for analysis of two properties. Finally, Figs. 6 and 7 have a single light source with multiple detectors. There is no mention as to how a system is supposed to work concurrently to obtain *both overlay and the CD*. In fact, there is some indication that there was no known method of implementing such concurrent measurement as

the specification states that “the system may be configured to determine a critical dimension and an overlay misregistration of a specimen *sequentially or substantially simultaneously*.” (Ex. 1004 at 41:46-48.) Once again, a POSITA would have been left to determine *how* to use the system to perform both the overlay and the CD measurement concurrently when the only teachings in the Levy specification dealing with the CD measurement is shown in Fig. 8 and there are no teachings as to how to add the overlay features to the embodiment of that Fig. 8.

Levy’s discussion of Fig. 9 teaches that there are multiple “measurement devices” for determining at least one property, where CD and overlay are two of possible properties on a list of properties. Levy, however, fails to teach how to implement this. For example, Levy states that the system “may be configured to determine at least four properties of the specimen simultaneously or sequentially. In addition, each of the measurement devices may be configured to determine any property of a specimen as described herein.” (*Id.* at 43:4-8.) From this simplistic statement, a POSITA is left to figure out how to implement four different processes using an unknown number of light sources with an unknown number of detectors with an unknown number of features with which to obtain measurements from and using an unknown sequence (sequential or simultaneous).

B. Petitioner’s Flawed Anticipation Argument Allegedly Based on Levy

Against the background of a vast hodge podge of tools without any necessary discussion of how they are to be used, it is readily apparent that Petitioner’s Ground 1 pulls tidbits from a large number of embodiments when attempting, using impermissible hindsight, to construct a composite disclosure that meets the elements of the challenged claims. A close inspection of Petitioner’s Levy specification cites reveals reference to something on the order of **40** or more different embodiments. While each distinct embodiment—e.g., the embodiment of Fig. 8 or the embodiment of Fig. 9—may include *a few* of the twelve claim elements of the three challenged claims, no single embodiment includes or teaches *all* of the eight elements of claim 19, much less the nine elements of dependent claim 20 or the eleven elements of dependent claim 21.⁵

In particular, while Petitioner cites to multiple different portions of the specification—and, thus, multiple different embodiments—for each of the eight elements of claim 19 and the additional elements of claims 20 and 21, at no point does Petitioner cite to the *same* embodiment/specification portion for *each* of the eight or nine or eleven elements. This is insufficient to make out anticipation. As the Federal Circuit has held, “anticipation is *not* proven by ‘multiple, distinct

⁵ Using Petitioner’s structure, claim 19 has eight elements, claim 20 adds one more, and claim 21 adds three more, for a total of twelve.

teachings [within a single reference] that the artisan might somehow combine to achieve the claimed invention.” *Microsoft Corp.*, 878 F.3d at 1069 (quoting with approval *Microsoft Corp.*, IPR2014-01457, Paper 59 at 29-30.)

While Petitioner pays limited lip service to the notion that the embodiments can be used together (Pet. at 36; Ex. 1003 at ¶¶182-185), an examination of the specification portions cited reveals that there is *no* indication that the embodiment being discussed there (all of the discussion relates either to the embodiment of Fig. 9 or to “an embodiment” under the heading of “Further Improvements”) is to be combined with any of the other embodiments. Certainly, the cited portions of Levy do not present a single embodiment that includes all of the claim elements. Petitioner presents no evidence that all of the claim elements of the challenged claims are actually taught as being embodied together in single system in the manner called for by the challenged claims. Further, Petitioner fails to explain or provide any teaching as to how a POSITA would have known to combine the eight distinct cited embodiments of Levy together and in the specific manner as proposed by Petitioner.

Significantly, Petitioner and its expert both concede this fatal flaw in Ground 1. In the opening sentence of the Petition’s argument relating to Ground 2—obviousness over Levy—Petitioner explicitly admits that Levy “requires multiple ‘embodiments’” to meet the challenged claims. (Pet. at 51.) Petitioner’s expert

admits the same. (Ex. 1003 at ¶271: “the relevant disclosure in Levy is from multiple embodiments.”)

Because no single embodiment described in Levy discloses all elements of any of the three challenged claims, Ground 1 fails.

VII. PETITIONER HAS FAILED TO SHOW A PROPER MOTIVATION TO COMBINE SPECIFIC ONES OF THE HUNDREDS OF EMBODIMENTS OF LEVY IN SUCH A WAY AS TO TEACH THE INVENTIONS OF THE CHALLENGED CLAIMS

A. Petitioner Fails to Provide Sufficient Evidence of Motivation

Petitioner has not demonstrated a motivation to combine the hundreds of embodiments of Levy in a manner to reach the systems claimed in challenged claims 19-21, nor that a POSITA would have been motivated and taught to combine the specific embodiments necessary to create the combination of those claims. In addition, as discussed in the next section, Levy teaches hundreds of embodiments of tools but provides very little teaching of how to perform specific methods using those tools.

As discussed above, Levy teaches over 400 different embodiments. These embodiments could be mixed and matched to come up with many thousands of combinations. With so many combinations possibly available, and with no particular teaching as to how to perform various methods when using particular embodiments, it is insufficient for Petitioner to summarily conclude that it would have been obvious to a POSITA to pick and choose specific tool embodiments

from amongst the hundreds to be combined in a way that might allow for the performance of the claimed methods, and *for the POSITA to know how to perform the claimed method using the combination embodiment.*

Given the thousands of combinations, it is not credible for Petitioner's alleged expert Glew to summarily opine that "[t]he teachings of Levy would, in fact, lead a POSITA to treat the various 'embodiments' as a complementary system. (Ex. 1003 at ¶273.) A catch-all statement in Levy that "further alternative embodiments of various aspects of the invention may be apparent" is simply not enough to motivate a POSITA to consider the thousands of embodiment combinations and then particularly focus on the combination of tool embodiments and specific methods to be performed on that combination tool.

While Petitioner's alleged expert contends that "[i]t would have been routine for a POSITA to combine" the many hundreds of embodiments of Levy (*id.* at ¶273), he provides no evidence whatsoever as to *why* a POSITA would combine specific embodiments out of the hundreds disclosed in the specific way needed to reach a tool that then practices the claimed method of the '330 patent.

Indeed, if there had been sufficient suggestion or teaching contained within the confines of the Levy patent to motivate a POSITA to create just the right combination amongst the thousands to perform just the right method as claimed in the '330 Patent, why then did Levy not do so itself? Any attempt to select out a

special combination embodiment and use it in a way that is never specifically described by Levy is inappropriate hindsight.

Obviousness requires more than a mere showing that the prior art includes references mentioning each limitation of the claim. *Unigene Labs.*, 655 F.3d at 1360. Even if individual modifications or choices were obvious, Petitioner was required to explain why making all of the changes at once would have been obvious. *Apple Inc. v. Contentguard*, Paper 9 at 16-17. Of particular importance here, even for an obviousness challenge based on a single reference, there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful. *In re Stepan Co.*, 868 F.3d at 1345-46. Petitioner has failed to meet this standard.

B. Levy Fails to Provide Sufficient Teaching of How to Use Its Disclosed Tools in a Manner to Reach the Methods of the Challenged Claims of the '330 Patent

While Levy implies at certain locations in the specification that more than one measurement can be taken, Levy never teaches how one would *concurrently* measure both a CD and overlay and, indeed, teaches away from such a method. For example, the discussion at column 139 groups all of the possible parameters and, in the following paragraph, states in multiple spots that the measurements are being taken at “various positions across the specimen” to deal with conditions that “vary across the specimen.” (Ex. 1004 at 139:58-140:9.) This indicates that the

feedback is done due to **one** parameter measurement taken in different locations and **not** a requirement for determining if two different processes require feedback. There is no teaching in Levy for using the feedback on a **concurrent** measurement.

Indeed, a major flaw with Levy is its failure to teach a POSITA how to use any of the described tools in the specific manner called for by the challenged claims of the '330 Patent. While a POSITA may understand the presence of various tools, he is not taught how to implement the tools to perform the concurrent measurement and subsequent analysis, as claimed. Because the scattered discussions of analyses that are disclosed in Levy are cursory and backhanded, a POSITA would require undue experimentation to reach the method of the '330 Patent.

As an analogy, Levy presents the POSITA with a lot of 2x4s and nails and tells the POSITA that these raw materials can be used to build a house, a bridge, a roller coaster, or a coffee table. Then Levy simply says “go to it.” Without some indication as to **how** to do it, all you have are the 2x4s and nails. While the elements may be there to build a desired item, far more is needed to pick and choose specific elements for specific purposes to reach the coherent final product.

While Levy may teach that a POSITA can use a tool to take both types of measurements, Levy fails to describe how such measurements using any specific tool are supposed to be taken. Analyzing for CDs and overlays use very different

features. How would a POSITA know to combine the different features and use one of the Levy tools to do so? If a POSITA does not have to combine the features and is looking at individual features, how does the Levy tool work to perform this measurement/analysis simultaneously? Does a POSITA need to assume that, if he has two light sources and two detectors, he can necessarily do two analyses simultaneously? Levy does not enable a POSITA to use his teachings to practice the concurrent method of the challenged claims of the '330 Patent.

Hindsight analysis is inappropriate. *Ortho-McNeil Pharm.*, 520 F.3d at 1364. A petition must demonstrate a rationale to combine prior art references without relying on the patent disclosure itself. *Apple Inc. v. Contentguard*, Paper 9 at 15, 17. The Petitioner must not use the patent as a roadmap. *In re NTP, Inc.*, 654 F.3d at 1299. Ground 2 fails.

VIII. PETITIONER HAS FAILED TO SHOW A PROPER MOTIVATION TO COMBINE THE TEACHINGS OF WONG AND BROWN IN SUCH A WAY AS TO REACH THE INVENTIONS OF THE CHALLENGED CLAIMS

Petitioner fails to demonstrate a legitimate motivation to combine Wong (Ex. 1005) and Brown (Ex. 1006) to reach the challenged method claims of the '330 Patent, nor that a POSITA would have had a reasonable expectation of success in reaching the claimed methods in making the combination of these references.

To begin with, Petitioner and its expert admit that Wong fails to teach a number of key claim elements. For example, Petitioner explicitly admits that Wong does not disclose “controlling” a semiconductor fabrication process as called for in all three of the challenged claims. (Pet. at 53.) So does Petitioner’s expert. (Ex. 1003 at ¶ 287.) Petitioner and its expert also concede that Wong does not disclose the last two elements of claim 19 directed to “developing control data” and “feeding forward or backward the control data to adjust one or more fabrication components.” (Pet. at 61; Ex. 1003 at ¶ 341.)

They also effectively concede that Wong does not disclose the claim element—again a part of all three challenged claims—of “determining if one or more of the critical dimensions are outside of acceptable tolerances” by stating that “[a]lternatively, to the extent Wong does not explicitly disclose this limitation” (Pet. at 59) and that “[t]o the extent it is determined that Wong does not expressly describe determining if the critical dimensions are outside acceptable tolerances” (Ex. 1003 at ¶ 320).

Against these admissions, Petitioner’s expert argues simply that the combination of Wong and Brown teach all of the elements of the challenged claims *without ever substantively explaining why a POSITA would have any specific motivation to combine the teaching of the two references.* This failure is critical

since, in the absence of evidence of a motivation to combine, it is legally inappropriate to combine the references using hindsight.

As an example of why a POSITA would *not* be motivated to combine Wong and Brown, typical CD measurements are done on a target that uses the approximate size of the features on the production part of a wafer and would typically be in the range of 20nm widths and 60nm pitch. (*See, e.g.*, Ex. 2030 at Fig. 3(c).) For overlay, on the other hand, the targets were substantially larger—on the order of 80 μ m. (*See, e.g.*, Ex. 2030 at Fig. 4(a).) An 80 μ m size overlay feature is over 1300 times the size of the typical CD feature. Without some instruction as to how to use the CD and overlay features together, there would be *no* reason for a POSITA to combine these features and the cited references.

Obviousness requires more than a mere showing that the prior art includes references mentioning each limitation of the claim. *Unigene Labs.*, 655 F.3d at 1360. Even if individual modifications or choices were obvious, Petitioner was required to explain why making the multiple changes and additions needed to fill out the disclosure of Wong would have been obvious. *Apple Inc. v. Contentguard*, Paper 9 at 16-17. A reason for combining disparate prior art references is critical and should be made explicit. *InTouch Techs.*, 751 F.3d at 1351.

IX. PETITIONER HAS FAILED TO SHOW A PROPER MOTIVATION TO COMBINE THE TEACHINGS OF ADEL AND BROWN IN SUCH A WAY AS TO REACH THE INVENTIONS OF THE CHALLENGED CLAIMS

Petitioner has not demonstrated a motivation to combine Adel (Ex. 1007) and Brown (Ex. 1006), nor that a POSITA would have had a reasonable expectation of success in making the combination.

First, Petitioner and its expert admit that Adel does not teach the most fundamental element of the three challenged claims—“concurrent” measurements.

(*See, e.g.*, Pet. at 69 and 73; Ex. 1003 at ¶¶ 380, 388, 398.) They admit that the only discussion of CD measurement is a simplistic catch-all mention that the overlay methodology may be extended to other metrologies such as CD. (Pet. at 69 citing to Ex. 1007 at 32:2-5 and 36:1-8.) Further, it is at least impliedly admitted that it is not clear that Adel teaches “determining if one or more of the critical dimensions are outside of acceptable tolerances.” (Pet. at 74; Ex. 1003 at ¶ 417.) Against these admissions, Petitioner argues simply that a POSITA “would have been motivated to” use Brown with Adel (¶ 405) to fill in missing claim elements, without ever explaining or providing any evidence as to *why* there would have been any motivation to do so and why, if there was, Adel itself failed to think of doing so.

For example, the Petition just blithely concludes that these central claim elements can all be supplied by the Brown reference. In so doing, Petitioner’s

expert summarily concludes that—even though Adel does not teach “concurrent measurements,” such concurrent measurements “could be achieved with the scatterometry tool disclosed by Adel.” (Ex. 1003 at ¶ 438.) But this is simply too big a leap to make without further support, explanation, and motivation.

Notably, while Petitioner’s expert states (Ex. 1003 at ¶ 380), that Brown “discloses using the same well-known techniques (e.g., scatterometry) to measure both overlay and critical dimensions ‘substantially simultaneously,’” citing to ¶ 28 of Ex. 1006, that paragraph *nowhere mentions measuring overlay*. The only properties mentioned as possibly being measured are “a thickness, an index of refraction, or an extinction coefficient of the resist.” (*Id.*) Moreover, the only other mention of simultaneous measurement in Brown states that the properties that can be potentially measured “may include, but is not limited to, a thickness, a linewidth of a latent image, a height of a latent image, an index of refraction, or an extinction coefficient.” (Ex. 1006 at ¶ 41.) Again, there is no mention of overlay.

As discussed above with respect to the Wong reference, a POSITA would know that the features for CD measurements are hundreds of times smaller than for overlay. Indeed, Adel itself teaches that “overlay targets are characterized by large open spaces and large features sizes” when compared to critical dimension features. (Ex. 1007 at 3:22-23.) **An engineer who was working with a CD-SEM or scatterometry tool in 2003 would simply *not* have contemplated using such a**

typical CD tool to also get overlay measurements that were three orders of magnitude larger. The engineer might as well have just brought out a ruler to get the measurements.

The Petition simply concludes that the combination of Adel and Brown teach all of the elements of the challenged claims—which is itself questionable—*without ever substantively explaining why a POSITA would have any specific motivation to combine the teaching of the two references.* This failure is critical since, in the absence of evidence of a motivation to combine, it is legally inappropriate to combine the references using hindsight.

As previously discussed, obviousness requires more. Petitioner was required to explain *why* making the multiple changes and additions needed to fill out the disclosure of Adel would have been obvious. *Apple Inc. v. Contentguard*, Paper 9 at 16-17. A reason for combining disparate prior art references is critical and needs to be done explicitly. *InTouch Techs.*, 751 F.3d at 1351.

X. CONCLUSION

For all of the reasons discussed above, the Board should deny the Petition.

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DEVLIN LAW FIRM LLC

/Timothy Devlin/

Timothy Devlin

Registration No. 41,706

1526 Gilpin Avenue

Wilmington, DE 19806

(302)-449-9010

tdevlin@devlinlawfirm.com

Attorney for Patent Owner

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that there are 11,404 words in this paper, excluding any table of contents, table of authorities, mandatory notices under 37 C.F.R. § 42.8, certificate of word count, certificate of service, or appendix of exhibits. This certification relies on the word count of the word-processing system used to prepare this paper.

Respectfully submitted,

/s/ Timothy Devlin

Timothy Devlin
Registration No. 41,706
DEVLIN LAW FIRM LLC
1526 Gilpin Avenue
Wilmington, DE 19806
(302)-449-9010
tdevlin@devlinlawfirm.com

Attorney for Patent Owner

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document was served electronically via electronic mail on August 26, 2021, on the following counsel of record for Petitioners:

Counsel for Western Digital Technologies, Inc.	
<p>LEAD COUNSEL</p> <p>Matt Berkowitz (Reg. No. 57,215) Shearman & Sterling LLP 1460 El Camino Real Menlo Park, California 94025 Telephone: 650-838-3737 Facsimile: 650-644-0318 matthew.berkowitz@shearman.com</p>	<p>BACKUP COUNSEL</p> <p>Patrick Colsher (Reg. No. 74,955) Shearman & Sterling LLP 1460 El Camino Real Menlo Park, California 94025 Telephone: 650-838-3728 Facsimile: 646-848-7708 Patrick.colsher@Shearman.com</p> <p>L. Kieran Kieckhefer (<i>pro hac vice</i> to be requested) Shearman & Sterling LLP 535 Mission Street San Francisco, CA 94105 Telephone: 415-616-1124 Facsimile: 415-616-1369 Kieran.Kieckhefer@shearman.com</p>

/s/ Timothy Devlin

Timothy Devlin